

Root-Cause Analysis

June 2022



MICHIGAN MEDICINE
UNIVERSITY OF MICHIGAN



Our timeline for the day

1. Introductions
2. RCA Coaching
25 minutes
3. Case Study 1
20 minutes
4. Case Study 2
20 minutes
5. Case Study 3
20 minutes
6. Question and Answers

Introductions

Introductions



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RCA Coaching

1. What is an A3?
2. How is an A3 Structured?
Example A3
3. Analysis phase – A3

A3 Thinking

What is an A3?

A3 Thinking

What is an A3?

A visual tool to depict a problem-solving story, typically housed on an A3 sized paper.

An A3 document contains several boxes of information that can take anyone from the identification to the solution of a problem whether it is large or small.

Purpose: An A3 problem-solving document provides a template for collaborative problem-solving to address the root cause of a problem and create sustainable solutions

A3 Thinking

How is an A3 Structured?

Process Owner(s):

Sponsor(s):

Background
Current Situation
Goals/Target
Analysis

A3 Thinking

How is an A3 Structured?

Left side:

1. Background
2. Current Situation
3. Goals / Target
4. Analysis

A3 Thinking

How is an A3 Structured?

Right side:

1. Recommendations
2. Implementation Plan
3. Follow Up

Problem Solving A3 - (Date)

Team:

Recommendations (Proposed Countermeasures / Future State)

Implementation Plan

Follow Up/Sustaining Improvements

A3 Thinking

Analysis Phase – A3

A3 Thinking

Analysis Phase – A3

Purpose: Identify the causes of the problem decided on in the A3

Method: Causes of the problem can be identified using a number of tools that are grouped under Root-Cause Analysis. These tools include Fishbone Diagrams, Pareto Charts, and “5 Why” Analysis

Root Cause Analysis

Root Cause Analysis

Purpose of an RCA

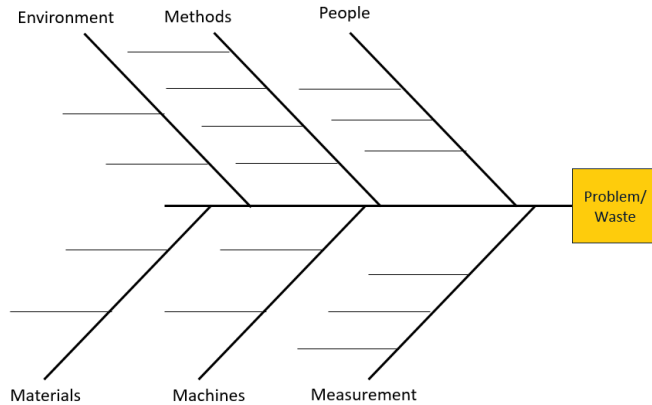


Root Cause Analysis

Choosing Your Approach

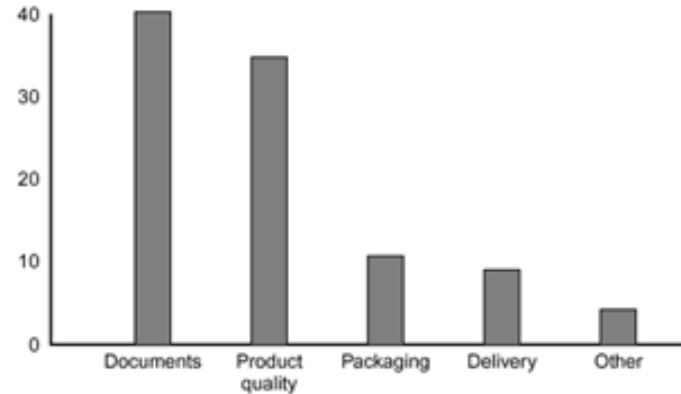


Fishbone Diagram

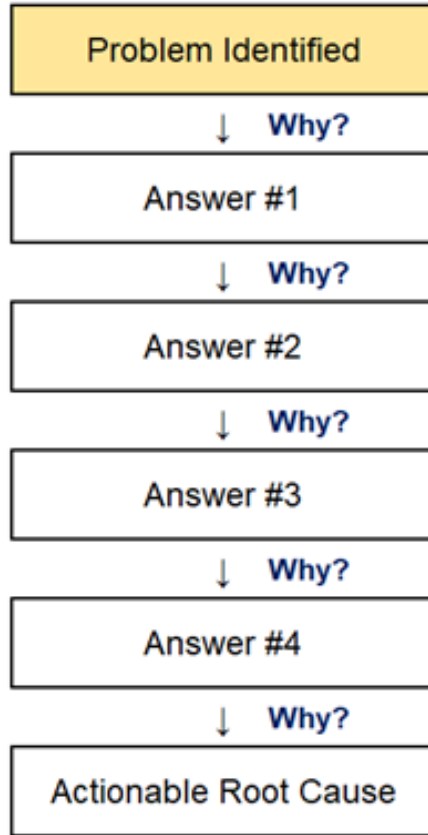


Pareto Chart

Types of Customer Complaints
Second Quarter 2005



And Others...



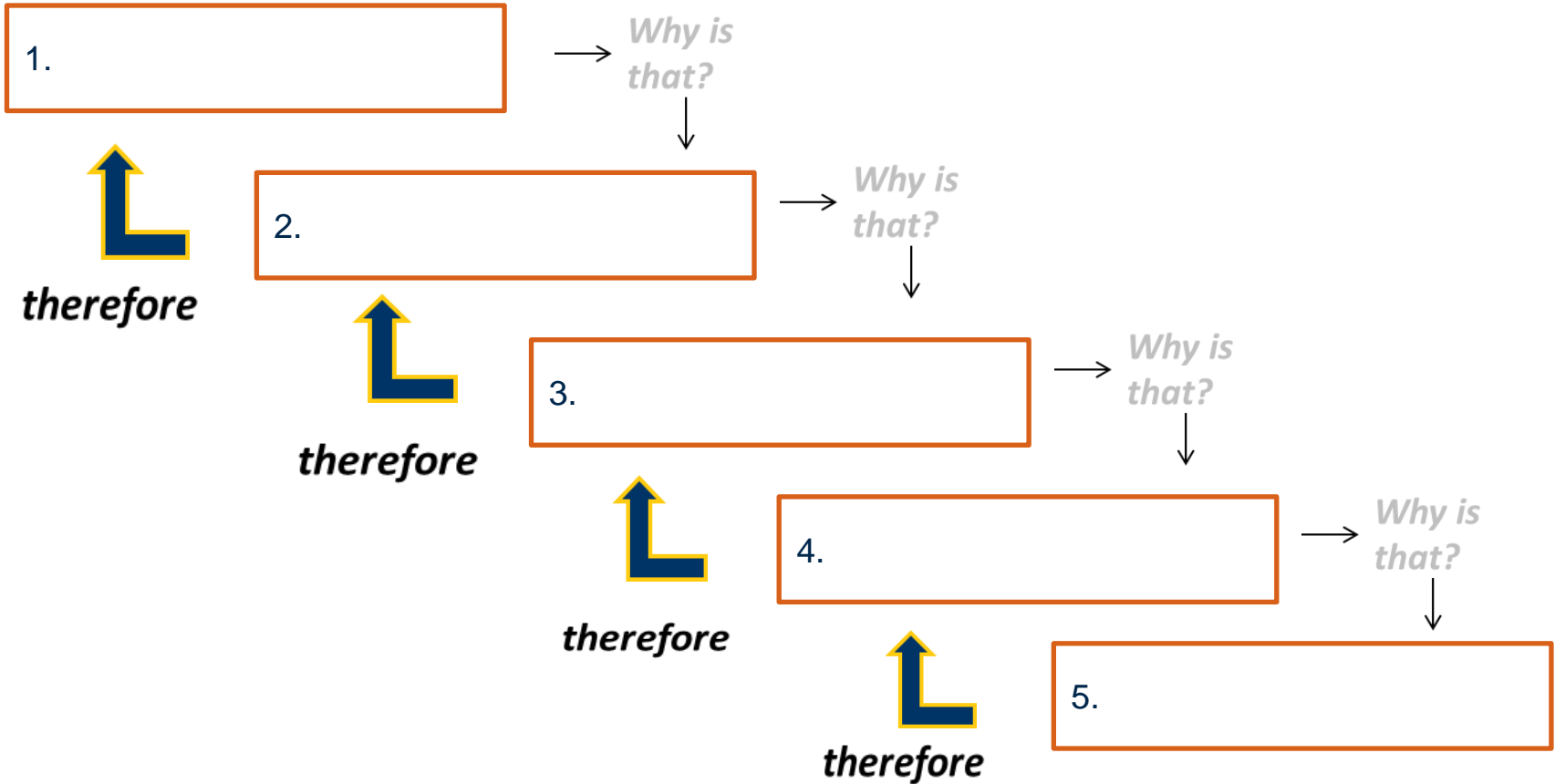
Root Cause Analysis

How to complete an RCA

1. Determine the problem
2. Establish primary contributing causes
3. Establish subsequent contributing causes
4. Add data or visuals!
5. Gather feedback

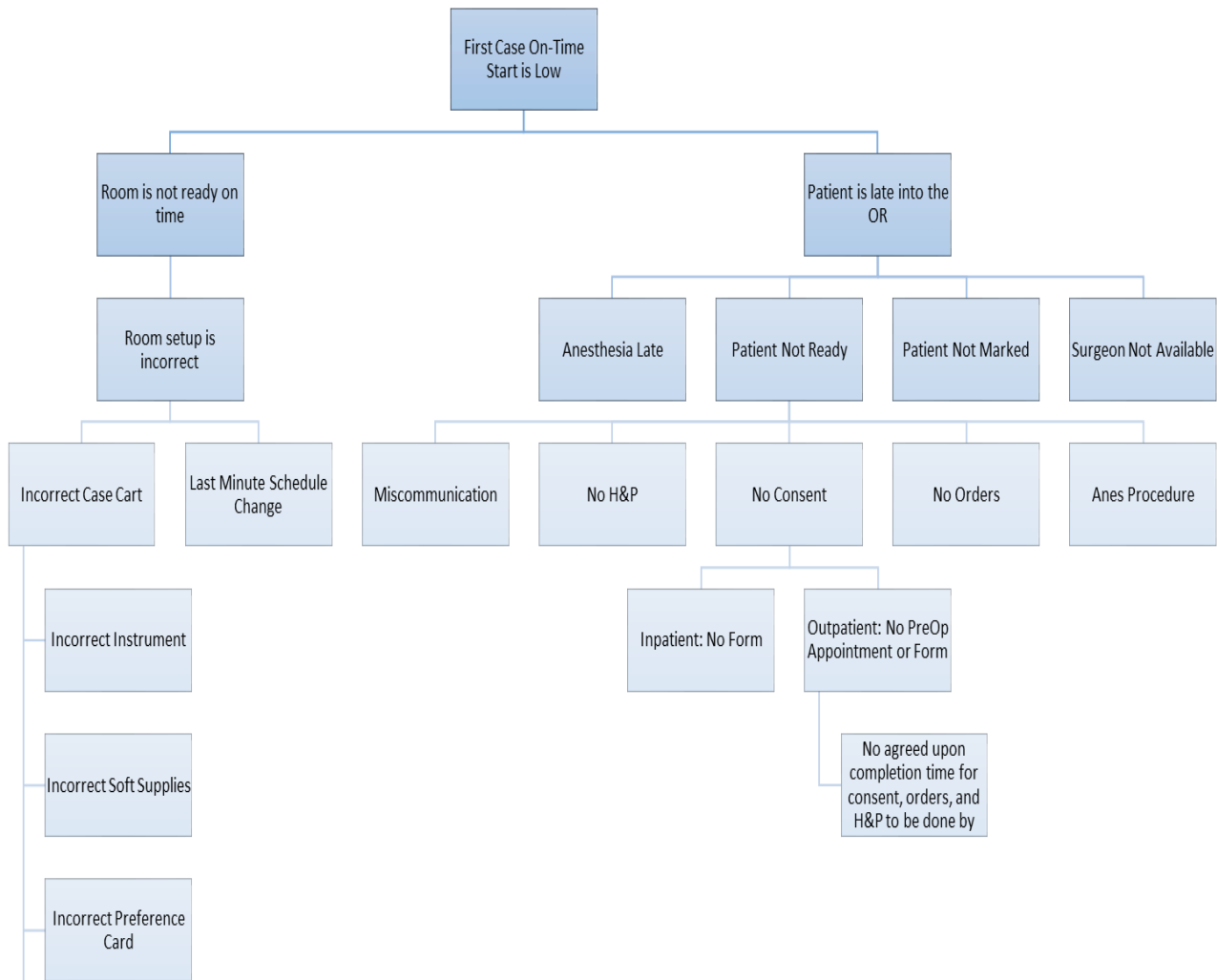
Root Cause Analysis

Setting Up for Success – Therefore Test



Root Cause Analysis

Root Cause Tree



Root Cause Analysis

Tips & Tricks for 5 Whys

- It gets easier with practice
- Warning! Be on the look out for...
 - Causes you have no control over
 - Identifying solutions
 - Dead-end paths
- There is often more than one root cause
- Use available resources:
- <https://msqc.org/quality-improvement/toolkits/ssi-toolkit/>
- Add data – gather more if needed
- Remember the **Therefore Test**

Questions?

Case Study One

Patient Jane Jones
presented an SSI
upon readmission



Case Study Two

Case Study Three

THANK YOU

